External Interface Specification Overview and Interface Design
(Working Draft)

Prepared for

The Office of the Under Secretary of Defense

Personnel and Readiness

And

The Defense Manpower Data Center

3 May, 1999

Developer's Representative Signature   Date

Acquirer's Signature   Date

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1. Scope

1.1. Identification

This document provides information on how the Defense Enrollment Eligibility and Reporting System (DEERS) communicates with the outside world using the ASC X12 protocol. The goal of the X12 protocol is to provide a standardized message structure that allows Electronic Data Interchange (EDI) trading partners the ability to communicate in a non-proprietary format. Implementation of a standardized message gives trading partners the ability to make changes to their own systems, which do not result in dramatic modifications to their trading partners systems. For the Military Health System (MHS) to achieve the potential administrative cost savings with EDI, standards have been developed and need to be implemented consistently by all organizations. To facilitate a smooth transition into the EDI environment, uniform implementation is critical.

1.2. System Overview

The Department of Defense (DoD) operates one of the largest health care systems in the world. Care is provided directly, through more than 160 military hospitals and 300 clinics, and indirectly, through the TRICARE [formerly known as the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS)], a cost-sharing health benefits program. The beneficiary population, estimated to be 17.2 million, includes active duty and retired members of the Army, Navy, Marine Corps, and Air Force, their family members, and their survivors. In addition, legislative action and reciprocal agreements authorize the provision of health care to DoD, United States Coast Guard (USCG), United States Public Health Service (USPHS), and National Oceanic and Atmospheric Administration (NOAA) personnel. This broad system of reciprocal health care delivery is referred to as the MHS.

In 1974, the U. S. Congress directed DoD to initiate a program to improve the control and distribution of military health care services, to project and allocate costs for existing and planned health care programs, and to minimize fraudulent use of military health benefits by unauthorized persons. DoD recognized that such a program would require the establishment of a comprehensive database – or uniform set of enrollment and eligibility information – for every person entitled to military health care benefits. The task of creating such a database was complicated by the fact that required information was not uniformly maintained or consistently available from the participating Uniformed Services.

An initial requirement, therefore, was the collection of enrollment and eligibility information, in a consistent format, from all participating Uniformed Services. The next step was the implementation of a system that would use the information to manage health benefit programs for eligible beneficiaries.

From July 1976 to July 1979, DoD conducted a series of studies and a demonstration project to examine alternative methods of implementing the enrollment/eligibility concept. Two objectives were identified: (1) to gather demographic and sociographic information on the population entitled to DoD benefits; and (2) to substantially reduce fraud and misuse of DoD health benefits.

To satisfy these objectives, DEERS was established in fiscal year 1979. In September 1979, a contract for the design, development, and implementation of DEERS was awarded and the system was placed in operation in February 1980.

Since that time, the original objectives and scope of DEERS have been expanded to include eligibility information for other Uniformed Services benefits and interface compatibility with other DoD systems and programs.

The DEERS Eligibility database was designed to meet the eligibility certification requirements of a wide range of health care providers and services. For example, TRICARE fiscal intermediaries (FIs) can query the Eligibility database as part of their claim processing cycle. Likewise, Composite Health Care System (CHCS) personnel can inquire about eligibility before beneficiaries are admitted to Military Treatment Facilities (MTFs) and Dental Treatment Facilities (DTFs). Uniformed Services personnel officers can query the Eligibility database, as well as write current information to the DEERS data records, using online personnel update transactions. The Eligibility database includes features that update the DEERS Enrollment database with information received through online transactions.

The Managed Care Support Contractor (MCSC) Interface is designed to provide claim and benefit relevant data to the organizations administering health benefits on behalf of the DoD Health Care Network.

Using the X12 protocol, DEERS will provide the MCSC and CHCS sites serving as enrolling organizations the ability to inquire about health care eligibility or benefit information associated with a subscriber or dependent under the subscriber's plan, enroll a person into a health benefit plan, exchange other health insurance information, and perform person updates.

The X12 protocol will also allow the MCSCs the capability to inquire for coverage for claims processing, to inquire and update Catastrophic Cap amounts and Deductible amounts, and to submit amounts applied on a claim to Catastrophic Cap and Deductible.

1.3.   Document Overview

The purpose of this interface specification is to explain the X12 message structures that must be used by the MCSC and CHCS sites serving as an enrolling organization when sending a transaction into DEERS.

1.4. EIS Legend

1.4.1. Usage

Usage

1. Segment DTP

ID	REF	Element Name	Attributes	Value	Description
01	374	Date/Time Qualifier	R/R ID 3/3	303	303=Maintenance Effective Date
02	1250	Date/Time Format Qualifier	R/R ID 2/3	D8	Date Format
03	1251	Date (CCYYMMDD)	R/R AN 1/35		Mailing Address Date Length=8

Position 1 – DEERS Usage:

    Describes, at a data element level, the usage requirement of the field to DEERS.

    Values:

      R = Required   DEERS requires this element.
      S = Situational   DEERS may require this element based on the Business Rules defined in the IOD.
      N = Not Used   DEERS does not use this element.

Position 2 – HIPAA / X12 Usage:

    Describes at a data element level the usage requirement of this of the field in accordance with the HIPAA Implementation guide and the X12 Standards.

    Values:

      R = Required   HIPAA Implementation Guide requires this element.
      S = Situational   HIPAA Implementation Guide may require this element under specific situations.
      M = Mandatory   HIPAA Implementation Guide does not use this element, but X12 standards require this element.
      O = Optional   HIPAA Implementation Guide does not use the element, but X12 standards allow this element to be used optionally.
      X = Conditional HIPAA Implementation Guide does not use the element, but X12 standards allow this element to be used optionally based on conditions described in the X12 standards.

Note: Values of M, O and X in the HIPAA/X12 Usage field indicates that this element is needed by DEERS but is not in the HIPAA Implementation Guide. DMDC is currently working with the X12N (Insurance) Subcommittee to get these elements added to the HIPAA Implementation Guide.

1.4.2.   Length

X12 Length

1. Segment DTP

ID	REF	Element Name	Attributes	Value	Description
01	374	Date/Time Qualifier	R/R ID 3/3	303	303=Maintenance Effective Date
02	1250	Date/Time Format Qualifier	R/R ID 2/3	D8	Date Format
03	1251	Date (CCYYMMDD)	R/R AN 1/35		Mailing Address Date Length=8

Length on DEERS

X12 Length:

> Position 1 – Minimum Allowable Length.
> Position 2 – Maximum Allowable Length.

DEERS Length:

> The length of the field on the DEERS database.

In future releases of the EIS, both the Length and the Usage Attributes will be redone to improve the readability and functionality of this document.

2. Referenced Documents

The following documents are referenced in this document:

- ASC X12N-270/271 *Health Care Benefit Inquiry and Response,* Insurance Subcommittee, Version 4010; Washington Publishing Company, 1997.

- ASC X12N-834 *Benefit Enrollment and Maintenance,* Insurance Subcommittee, Version 4010; Washington Publishing Company, 1997.

- ASC X12N-835 *Health Care Claim Payment/Advice,* Insurance Subcommittee, Version 4010; Washington Publishing Company, 1997.

- ASC X12N-278 *Health Care Services Review – Request for Review and Response*, Insurance Subcommittee, Version 4010; Washington Publishing Company, 1997.

- ASC X12N-278 *Health Care Services Review – Inquiry and Response*, Insurance Subcommittee, Version 3070 ; Washington Publishing Company, 1997.

- Department of Defense DEERS/MHS *Interface Operational Description*.

- DEERS Data Dictionary.

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3. Interface Design

The general concept in X12, which predominates all types of transaction, is that there is an information source and an information receiver. This concept is consistent in any X12 transaction. The information source is considered to be the entity having the answers to the questions being asked. This is typically the payer, insurer, or an entity maintaining records. The entity regarded as the information receiver is described as the one asking the questions.

DEERS is typically considered to be the information source except in the instance of an enrollment, in which the roles are somewhat reversed.
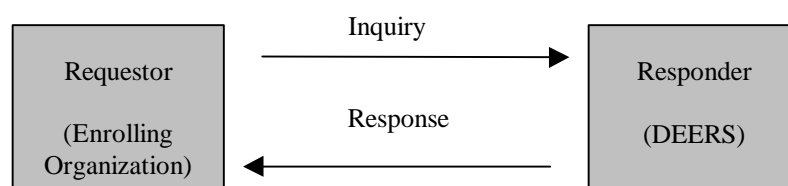
X12 characterizes the individual who is the insured member as the 'Subscriber'. Anyone receiving health benefits because of their association with the subscriber is considered to be a 'Dependent' of that subscriber.

The DEERS interface will accept the X12 standardized messages and translate them into a proprietary record layout, which is processed by the database. The database will return the information in its proprietary format to the interface, at which time it will be reformatted into a X12 standardized reply.

3.1. Interchange and Application Control Structures

Identifies options selected for implementation or exceptions to ASC X12 interchange and application control structures.

3.2. Application Control Structure Definitions and Concepts

Identifies options selected for implementation or exceptions to ASC X12 application control structure definitions and concepts.

3.3. Business Transaction Structure Definitions and Concepts

Identifies options selected for implementation or exceptions to ASC X12 business transaction structure definitions and concepts.

3.4. Envelopes and Control Structures

Identifies options selected for implementation or exceptions to ASC X12 envelopes and control structures.

3.4.1.   Interchange Control Header (ISA)

ID	REF	Element Name	Attributes	Value	Description
ISA01	I01	Authorization Information Qualifier	R/R ID 2/2		Authorization Information Qualifier
ISA02	I02	Author Information	R/R AN 10/10		Author Information
ISA03	I03	Security Information Qualifier	R/R ID 2/2		Security Information Qualifier
ISA04	I04	Security Information	R/R AN 10/10		Security Information
ISA05	I05	Interchange ID Qualifier	R/R ID 2/2		Interchange ID Qualifier
ISA06	I06	Interchange Sender ID	R/R AN 15/15		Interchange Sender ID
ISA07	I05	Interchange ID Qualifier	R/R ID 2/2		Interchange ID Qualifier
ISA08	I07	Interchange Receiver ID	R/R AN 1/15		Interchange Receiver ID
ISA09	I08	Interchange Date	R/R DT 6/6		Interchange Date
ISA10	I09	Interchange Time	R/R TM 4/4		Interchange Time
ISA11	I10	Interchange Control Standards Identifier	R/R ID 1/1		Interchange Control Standards Identifier
ISA12	I11	Interchange Control Version Number	R/R ID 5/5		Interchange Control Version Number
ISA13	I12	Interchange Control Number	R/R N0 9/9		Interchange Control Number
ISA14	I13	Acknowledgment Requested	R/R ID 1/1		Acknowledgment Requested
ISA15	I14	Test Indicator	R/R ID 1/1		Test Indicator
ISA16	I15	Component Element Separator	R/R 1/1		Component Element Separator

3.4.2.   Interchange Control Trailer (IEA)

ID	REF	Element Name	Attributes	Value	Description
IEA01	I16	Number of Included Functional Groups	R/R N0 1/5		The number of functional groups included in an interchange
IEA02	I12	Interchange Control Number	R/R N0 9/9		A Control Number assigned by the interchange sender

3.4.3.   Functional Group Header (GS)

ID	REF	Element Name	Attributes	Value	Description
GS01	479	Functional ID Code	R/R ID 2/2		
GS02	142	Application Sender's Code *(2 field concatenation of Batch / Real time indicator and the Sender's Site ID)*	R/R AN 2/15		Batch Real Time Indicator B – Batch R – Real Time DEERS Length=1 Sender's Site ID DEERS Length=4
GS03	124	Application Receiver's Code	R/R AN 2/25		
GS04	373	Date	R/R DT 8/8		
GS05	337	Time	R/R TM 4/8		
GS06	28	Group Control Number	R/R ID 1/9		
GS07	455	Responsible Agency Code	R/R ID 1/2		
GS08	480	VersioR/Nelease/Industry Identifier Code	R/R AN 1/12		

3.4.4.   Functional Group Trailer (GE)

ID	REF	Element Name	Attributes	Value	Description
GE01	97	Number of Transaction Sets Included	R/R N0 1/6		Total number of transaction sets included in the functional group
GE02	28	Group Control Number	R/R N0 1/9		Assigned number originated and maintained by the sender

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3.5. Acknowledgments

3.5.1.   997 Functional Acknowledgment

The 997 functional acknowledgment is required in receipt of any transaction set, excluding receipt of the 997 itself.

Proposed 997 Structure

Segments	*Elements*
ST	01, 02
AK1	01, 02
AK2	01, 02
AK3	01, 02, 03, 04
AK4	01, 02, 03, 04
AK5	01, 02, 03, 04
AK9	01, 02, 03, 04
SE	01, 02

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997 Transaction Set

Transaction Set Header (ST)

ID	REF	Element Name	Attributes	Value	Description
ST01	143	Transaction Set ID Code	R/R ID 3/3	270	
ST02	329	Transaction Set Control Number	R/R AN 4/9		

1. Segment AK1

ID	REF	Element Name	Attributes	Value	Description
01	479	Functional ID Code	R/R ID 2/2		Group ID of the transaction being acknowledged
02	28	Group Control Number	R/R N0 1/9		Control Number found in the GS segment of the transaction being acknowledged

2. Segment AK2

ID	REF	Element Name	Attributes	Value	Description
01	143	Transaction Set ID Code	R/R ID 3/3		Transaction set ID of the transaction being acknowledged
02	329	Transaction Set Control Number	R/R AN 4/9		Control Number found in the ST segment of the transaction being acknowledged

997 Transaction Set

3. Segment AK3 **(Used only when a syntax error is found within sender's transaction.)**
     Used to identify the Segment in error.

ID	REF	Element Name	Attributes	Value	Description
01	721	Segment ID Code	R/R ID 2/3		Segment ID of the data segment in error
02	719	Segment Position in Transaction Set	R/R ID 1/6		The numerical count of the segment in error beginning from ST segment
03	447	Loop ID Code	S/S AN 1/6		The Loop ID of the segment in error
04	720	Segment Syntax Error Code	S/S ID 1/3		Code indicating what syntax error was found

4. Segment AK4 **(Used only when a syntax error is found within sender's transaction.)**
     Used to identify the Element in error.

ID	REF	Element Name	Attributes	Value	Description
01	C030	Position in Segment	R/R ID 2/3	722	Pertaining to element data within segment
02	725	Data Element REF Number	S/S ID 1/4		
03	723	Data Element Error Code	S/S AN 1/3		Code indicating the data element error found
04	724	Copy of Bad Data Element	S/S ID 1/99		A copy of the data element in error

997 Transaction Set

5. Segment AK5

ID	REF	Element Name	Attributes	Value	Description
01	717	Transaction Set Acknowledgment Code	R/R ID 1/1	A, E, R	A= Accepted E= Accepted with errors R= Rejected
02	718	Transaction Set Syntax Error Code	S/S ID 1/3		Error Explanation Code
03	718	Transaction Set Syntax Error Code	S/S ID 1/3		Error Explanation Code
04	718	Transaction Set Syntax Error Code	S/S ID 1/3		Error Explanation Code

6. Segment AK9

ID	REF	Element Name	Attributes	Value	Description
01	715	Functional Group Acknowledgment Code	R/R ID 1/1	A, E, P, R	A= Accepted E= Accepted with errors P= Partially accepted R= Rejected
02	97	Number of Transaction Sets Included	R/R N0 1/6		A count of transactions included
03	123	Number of Received Transaction Sets	R/R N0 1/6		A count of transactions reviewed
04	2	Number of Accepted Transaction Sets	R/R N0 1/6		A count of transactions accepted

Transaction Set Trailer (SE)

ID	REF	Element Name	Attributes	Value	Description
01	96	Number of Included Segments	R/R N0 1/10		Total Number of Segments
02	329	Transaction Set Control Number	R/R AN 4/9		

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3.5.2. 824 Application Advice

The 824Application Advice is designed to accommodate the business need of reporting the results of an application system's data edit and in this instance the success of DEERS database system update. Since updates may occur for more than one person on an X12 Transaction Set. The OTI Loop on the 824 Transaction Set also loops on a per person basis.

3.5.2.1. Full Segment List

Segments   *Elements*

ST
BGN
N1 Loop (Plan Sponsor)
  N1
N1 Loop (Insurer)
  N1
OTI Loop (Person)
   OTI
   NM1
   TED Loop (Error)
     TED
SE

3.5.2.2. DEERS Error

Segments   *Elements*

ST
BGN
N1 Loop (Plan Sponsor)
  N1
N1 Loop (Insurer)
  N1
OTI Loop (Person)
   OTI
   TED Loop (Error)
     TED
SE

3.5.2.3. Response to Addition of Newborn

Segments   *Elements*

ST
BGN
N1 Loop (Plan Sponsor)
  N1
N1 Loop (Insurer)
  N1
OTI Loop (Person)
   OTI
   NM1

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824 Application Advice

Transaction Set Header (ST)

ID	REF	Element Name	Attributes	Value	Description
ST01	143	Transaction Set ID Code	R/R ID 3/3	824	
ST02	329	Transaction Set Control Number	R/R AN 4/9		

1. Segment BGN

ID	REF	Element Name	Attributes	Value	Description
01	353	Transaction Set Purpose Code	R/R ID 2/2	06, 44	06= Confirmation (at least one change accepted) 44= Rejection (every change was rejected)
02	127	Reference ID	R/R AN 1/30		Trace Number
03	373	Date	R/R DT 8/8		Transaction Online Date DEERS Length=8
04	337	Time	S/R TM 4/8		Transaction Online Time DEERS Length=6
08	306	Action Code	S/R ID 1/2	AC	AC= Acknowledge

2. Segment N1 (Plan Sponsor)

ID	REF	Element Name	Attributes	Value	Description
01	98	Entity ID Code	R/R ID 2/3	P5	P5= Plan Sponsor
02	93	Organization	R/N AN 1/60	DoD	DoD= Department of Defense
03	66	ID Code Qualifier	R/R AN 1/2	46	46= ETIN Qualifier
04	67	ID Code	R/R AN 2/80		DoD Electronic Transmitter ID Number (ETIN)

824 Application Advice

3. Segment N1 (Insurer)

ID	REF	Element Name	Attributes	Value	Description
01	98	Entity ID Code	R/R ID 2/3	IN	IN= Insurer
02	93	Organization	R/N AN 1/60		MCSC Name
03	66	ID Code Qualifier	R/R AN 1/2	46	46= ETIN Qualifier
04	67	ID Code	R/R AN 2/80		Site Identifier DEERS Length=4

4. Segment OTI – OTI Loop

Note: This loop will occur for each 2000-Member Loop of the original 834 Transaction Set.

ID	REF	Element Name	Attributes	Value	Description
01	110	Application Acknowledgment Code	R/R ID 1/2	IA, IR	IA= Item Accept IR= Item Reject Transaction Return Status Code DEERS Length=1
02	128	Reference ID Qualifier	R/R ID 2/3	1L	1L= Subscriber or Insured
03	127	Reference ID	R/R AN 1/30		DEERS Identifier DEERS Length=11 Or Patient Identifier DEERS Length=9 Corresponds to the Insured's DEERS ID or Patient ID located in NM109 of the 2000 Member loop of the original 834 Transaction Set.

824 Application Advice

5. Segment NM1 (Optional, Response to Addition of Newborn)

ID	REF	Element Name	Attributes	Value	Description
01	98	Entity Identifier Type Code	R/M ID 2/3	IL	IL= Insured or Subscriber
02	1065	Entity Type Qualifier	R/M ID 1/1	1	1= Person
03	1035	Last Name or Organization Name	R/O AN 1/35		Person Last Name DEERS Length=26
04	1036	First Name	R/O AN 1/25		Person First Name DEERS Length=20
05	1037	Middle Name	S/O AN 1/25		Person Middle Name DEERS Length=20
07	1039	Suffix	S/O AN 1/10		Person Cadency Name DEERS Length=4
08	66	ID Code Qualifier	R/S ID 1/2	MI	MI= Member Identification
09	67	ID Code (2-field concatenation of ID Type and ID Number)	R/R AN 2/80		Person Identifier Type Code DEERS Length=1 Person Identifier DEERS Length=9

6. Segment TED – TED Loop **[Optional and repeatable, used for DEERS errors.]**

ID	REF	Element Name	Attributes	Value	Description
01	647	Application Error Condition Code	R/R ID 1/3	848	848= Incorrect Data
02	3	Free Form Message	R/R AN 1/60		Beneficiary Transaction Error Code DEERS Length=3

824 Application Advice

Transaction Set Trailer (SE)

ID	REF	Element Name	Attributes	Value	Description
01	96	Number of Included Segments	R/R N0 1/10		Total Number of Segments
02	329	Transaction Set Control Number	R/R AN 4/9		